

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph at page 9, line 5, with the following rewritten paragraph:

Further, since, in the conventional optical disc device, the servo error signal generation circuit ~~1002~~ 1009 is constituted by analog circuits as described above, it is necessary to provide plural kinds of analog signals for performing the predetermined plural patterns of operations corresponding to the pickup structure, the playback media, and the playback mode, leading to increases in circuit scale and power consumption.

Please replace the paragraph at page 9, line 11, with the following rewritten paragraph:

Since the servo error signal generation circuit ~~1002~~ 1009 is constituted by analog circuits, when performing the operations shown in figure 21 and 22 using the servo error signal generation circuit ~~1002~~ 1009, there may occur limitations on adjustment precision of the values k and a which are operation constants, due to limitations on the circuit scale and the like, and further, the adjusted operation constants may be varied, leading to deterioration of S/N.

Please replace the paragraph at page 62, line 23, with the following rewritten paragraph:

Next, other examples of the servo error signal generation circuit 16 and the servo operation circuit 17, which have been described for the second embodiment, will be described as a third embodiment of the present invention. According to the servo error signal generation circuit 16 and the servo operation circuit 17 of the optical disc device to be described hereinafter, the servo operation circuit 17 is provided with a high-pass phase-lead filter ~~66~~ 65 for compensating, by phase compensation, a delay time until the start of the arithmetic processing for the signals from the sub photodetectors E~H thereby to compensate a phase delay due to the operation delay time for the signals from the sub photodetectors E~H.

Please replace the paragraph at page 64, line 23, with the following rewritten paragraph:

Further, the adder 66 adds the output signal from the main beam servo operation unit ~~61~~62 and the output signal from the high-pass phase-lead filter 65, and finally outputs the result of addition as a driving signal for the driving system.

Please replace the paragraph at page 66, line 4, with the following rewritten paragraph:

Hereinafter, the phase compensation by the high-pass phase-lead filter ~~61~~65 will be described in detail.

Please replace the paragraph at page 68, line 17, with the following rewritten paragraph:

In the third embodiment of the invention, the driving outputs from the main beam servo operation unit 62 and the high-pass phase-lead filter 65 are added using the adder 66. However, in the present invention, the delay time until the start of the arithmetic processing for the signals from the photodetectors receiving the sub beam with respect to the start time of the arithmetic processing for the signals from the photodetectors receiving the main beam is compensated by phase compensation using the high-pass phase-lead filter. For example, after generating servo error signals by the main beam operation unit 41 and the sub beam operation unit 43, the servo error signals generated by the sub beam operation unit 43 are phase-compensated using the high-pass phase-lead filter ~~61~~65, and the servo error signals outputted from the main beam operation unit 41 and the high-pass phase-lead filter ~~61~~65 are added using the adder 45, and thereafter, a driving output is generated on the basis of the sum.

Please replace the paragraph at page 74, line 1, with the following rewritten paragraph:

The digitized information of the amount of light received by the photodetectors A~H, which is output from the time-division AD converter 14, is input to the operation unit 91 of the servo error signal generation circuit 16. In the operation unit 91, a target servo error signal

generation program 92 adapted to the structure of the optical pickup, the recording/playback media, and the recording/playback mode is selected from among the plural servo error signal generation programs 92a~c, and a servo error signal generation operation is carried out using the selected servo error signal generation program 92. When generating plural kinds of servo error signals using an operation unit 91, the above-mentioned processing is time-divisionally carried out.

Please replace the paragraph at page 76, line 1, with the following rewritten paragraph:

The operation unit 101 selects the servo error signal generation programs ~~102~64~~ 102~104 adapted to the structure of the optical pickup, the recording/playback media, and the recording/playback mode from among the FE signal generation programs 102a~c, the TE signal generation programs 103a~c, and the AS signal generation programs 104a~c, respectively, and performs servo error signal generation, thereby generating FE signals, TE signals, and AS signals.

Please replace the paragraph at page 78, line 7, with the following rewritten paragraph:

During the operation of the operation unit 101 of the servo error signal generation circuit 16 according to the sixth embodiment, the operation unit 101 changes the operation frequencies of the servo error signal generation programs ~~102~64~~ 102~104 which are provided for every kind of servo error signal, according to the type of the servo error signal to be generated.

Please replace the paragraph at page 92, line 14, with the following rewritten paragraph:

In the case where the processing ability of the servo error signal generation circuit 16 is low and thereby it takes much time to perform generation of a servo error signal using the channels 1 to 4, if the time-division AD converter 171 performs AD conversion of the channels 5 and 6 at the same timing as the channels 1 to 4, there may occurs a situation that AD conversion of the channel 6 by the time-division AD converter 171 is ended during generation of a servo

error signal using the channels 1 to 4 by the servo error signal generation circuit 16. Thereby, the timing control circuit 121 cannot make the AD conversion result acquisition timing of the channel 6 by the servo error signal generation circuit coincide with the AD conversion end timing of the channel 6 of the time-division AD converter ~~604~~ 171, during generation of a servo error signal from the channels 5 and 6.